



UNITED STATES PATENT AND TRADEMARK OFFICE

42
UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/039,637	12/31/2001	Vinoo N. Srinivasan	42390.P12454	9237

7590 11/06/2003
Cynthia Thomas Faatz
BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP
Seventh Floor
12400 Wilshire Boulevard
Los Angeles, CA 90025-1026

EXAMINER

BOWERS, BRANDON

ART UNIT	PAPER NUMBER
----------	--------------

2825

DATE MAILED: 11/06/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/039,637

Applicant(s)

SRINIVASAN ET AL.

Examiner

Brandon W Bowers

Art Unit

2825

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 and 30-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9, 11, 13-20, 22-26 and 30-35 is/are rejected.
- 7) ☐ Claim(s) 10, 12, 21, 27 and 36 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 June 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Election/Restrictions

Applicant's election without traverse of claims 1-27 and 30-36 in Paper No. 6 is acknowledged.

Drawings

The drawings filed on 17 June 2002 are acceptable subject to correction of the informalities indicated on the attached "Notice of Draftsperson's Patent Drawing Review," PTO-948. In order to avoid abandonment of this application, correction is required in reply to the Office action. The correction will not be held in abeyance.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-9, 11, 13-20, 22-26, and 30-35 are rejected under 35 U.S.C. 102(e) as being anticipated by Patterson et al., US Patent No. 6,237,129.

In reference to claim 1, Patterson teaches a method comprising receiving relative placement constraint information that indicates a relative placement of a plurality of layout objects with respect to one another wherein one at least one of the objects is in a different level of hierarchy than another of the objects, and automatically placing the plurality of layout objects according to the relative placement constraint information (column 5, line 48 – column 7, line 12).

In reference to claim 2, Patterson teaches wherein remaining layout objects are placed using conventional layout placement (column 9, line 14 – column 10 line 67).

In reference to claim 3, Patterson teaches wherein receiving relative placement constraint information includes receiving information indicating a relative placement of the first layout object with respect to the second layout object wherein each of the objects is an instance, group, or vector (column 5, line 48 – column 7, line 12).

In reference to claim 4, Patterson teaches receiving information indicating a relative placement includes receiving information that the first and second layout objects are to be placed according to one of the following operations: horizontal step, vertical step, horizontal abut, vertical abut, and merge (column 5, line 48 – column 7, line 12).

In reference to claim 5, Patterson teaches determining an order for placing layout objects if no order is specified in the relative placement constraint information (column 6, lines 22-30).

In reference to claim 6, Patterson teaches creating a new group as a result of each set of relative placement operations (column 5, line 48 – column 7, line 12).

In reference to claim 7, Patterson teaches wherein creating a new group comprises one of creating a hard group in which relative placement constraints are specified for each layout object in the hard group and creating a soft group in which relative placements constraints are not specified for each layout object in the soft group (column 5, line 48 – column 7, line 12).

In reference to claim 8, Patterson teaches wherein receiving relative placement constraint information includes receiving absolute constraint information that includes space specification, keep-out regions, or an open bit specification (column 9, lines 51-55).

In reference to claim 9, Patterson teaches wherein receiving relative placement constraint information includes receiving global options, including boundaries, number of bits in a datapath, orientation of a unit, well alignment directions, rowsite heights or bit structures (column 7, lines 13-54).

In reference to claim 11, Patterson teaches wherein receiving relative placement information includes receiving object specific constraints including one or more of a span, a bit structure, a well-alignment style, a rowsite height, a stride, a height and width, and a rigidity indicator (column 5, line 48 – column 7, line 12).

In reference to claims 13-20, 22-26, and 30-35 drawn to an apparatus, method or article of manufacture containing the same limitations are described above in claims 1-9 and 11, the same rejection applies.

Allowable Subject Matter

Claims 10, 12, 21, 27 and 26 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: In methods comprising receiving relative placement constraint information including

a relative placement of a plurality of layout objects wherein one at least one of the objects is in a different level of hierarchy than another of the objects

specifying global options that include at least one of boundaries, number of bits in a datapath, orientation of a unit, well alignment directions, rowsite heights or bit structures

specifying object specific constraints including one or more of a span, a bit structure, a well-alignment style, a rowsite height, a stride, a height and width, and a rigidity indicator

prior art of record does not teach automatically placing the plurality of layout objects according to the relative placement constraint information such that object-specific constraints are given priority over a conflicting global option.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brandon W Bowers whose telephone number is

Art Unit: 2825

(703)305-4387. The examiner can normally be reached on 8:30 am until 5:00 pm Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Smith can be reached on (703)308-1323. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-1782.

BWB


VUTHE SIEK
PRIMARY EXAMINER